DOCUMENT RESUME

ED 292 379 HE 021 243

AUTHOR Skaggs, W. Jack
TITLE Work Values of Faculty Members in Selected Small Liberal Arts Colleges: A Comparative Study. ASHE Annual Meeting Paper.
PUB DATE Nov 87
NOTE 39p.; Paper presented at the Annual Meeting of the Association for the Study of Higher Education (Baltimore, MD, November 21-24, 1987).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Church Related Colleges; *College Faculty; Comparative Analysis; Higher Education; Job Satisfaction; National Surveys; *Private Colleges; *Small Colleges; *Teacher Attitudes; Values; *Work Attitudes
IDENTIFIERS *ASHE Annual Meeting

ABSTRACT

Work values of faculty members in small liberal arts colleges that belonged to the Council of Independent Colleges were investigated. Questionnaires were sent to 719 faculty members and 353 usable responses were received: 215 from church-related colleges and 138 from independent colleges. Super's Work Values Inventory was used to measure 15 work values, including creativity, management, achievement, surroundings, supervisory relations, independence, and economic return. Data were also gathered on faculty demographic variables. Data were analyzed with the Statistical Analysis System. Teaching disciplines were grouped as hard-soft, life-nonlife, and pure-applied according to Biglan's Model. Mutually exclusive categories were also used to provide eight disciplinary categories. Significant differences were found between the work value mean scores of faculty when they were categorized according to type of institution, teaching discipline, age, years at the institution, and sex. Findings include: a work value that permits one to live the kind of life desired and to be the type of person desired received the highest mean score, followed by altruism and independence; and the work values of management and esthetics received the lowest mean scores. Thirty-four references are cited. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED292379

WORK VALUES OF FACULTY MEMBERS IN SELECTED SMALL LIBERAL ARTS COLLEGES: A COMPARATIVE STUDY

By

W. JACK SKAGGS
Associate Professor of Business
Oklahoma Christian College
Oklahoma City, OK 73136-1100
(405-478-1661)

HE021 243

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

W. Jack Skaggs

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

ASHE

ASSOCIATION
FOR THE
STUDY OF
HIGHER EDUCATION

Texas A&M University
Department of Educational
Administration
College Station, TX 77843
(409) 845-0393

This paper was presented at the annual meeting of the Association for the Study of Higher Education held at the Sheraton Inner Harbor Hotel in Baltimore, Maryland, November 21-24, 1987. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

WORK VALUES OF FACULTY MEMBERS IN SELECTED SMALL LIBERAL ARTS COLLEGES: A COMPARATIVE STUDY

ABSTRACT

Super's (1970) Work Values Inventory was administered to 353 faculty members at selected small liberal arts colleges. The colleges were classified as church-related and independent and the faculty was categorized according to teaching discipline, the age of the faculty member, years as a faculty member, years at the institution, and sex. The importance of various work attributes was scored by the respondents, and mean work value scores were analyzed using the Analysis of Variance to determine if differences between the groups were significantly different.

Statistically significant differences were found between the work value mean scores of faculty members when they were categorized according to type of institution, teaching discipline, age, years at the institution, and sex.

BACKGROUND FOR THE STUDY

The morale and satisfaction of faculty members in higher education is of increasing concern in the academic community. In visits to thirty-eight campuses across the nation, Bowen and Shuster (1986) found that faculty morale varied considerably. While morale on twelve of the campuses was rated as good, it was rated as fair to very poor at twenty-five of the schools. Their assessment was that, overall, "faculty were frustrated and dispirited" (p.146).

Many factors have contributed to the decline in faculty satisfaction. Decreased enrollment and the resulting tightening of budgets have eroded the traditional "community of scholars." Also, increased egalitarianism in higher education has resulted in many students being enrolled in college although they are less prepared for academic life. They are lacking in basic skills for written and oral communications (Ladd, 1979). For the faculty member whose primary job is teaching undergraduates, this often leads to a decrease in a major source of satisfaction: students with intellectual curiosity (Freedman and Associates, 1979). This could partially explain the results of a recent study that found that the largest share of dissatisfied faculty are in liberal arts colleges (Change, 1985b, p. 33). Because of this, it is appropriate to examine the components of job satisfaction.

This paper will specifically examine the relative importance assigned to various work values by faculty members in selected small liberal arts colleges. Knowledge about the work value orientations of faculty will assist administrators in their efforts to provide reward systems and an environment that increase the likelihood of fulfilled values for faculty which, in turn, can lead to increased job satisfaction. In addition, if it is found that

faculty member work values do differ along the dimensions suggested, increased flexibility and variation in reward systems and faculty development programs would seem to be appropriate.

Job Satisfaction and Work Values

Locke (1976, p. 8) defined job satisfaction as "resulting from the perception that one's job fulfills or allows the fulfillment of one's important job values, providing and to the degree that those values are congruent with one's needs." Value attainment has repeatedly been shown to be associated with job satisfaction (Blood, 1969; Butler, 1983; Locke, 1976; Vroom, 1964; Wanous and Lawler, 1972). Before a manager or college administrator can provide the environment that offers the greatest opportunities for faculty value fulfillment, he or she must first know what the various faculty members value. In discussing the implications of the Expectancy Theory of motivation, Hitt, Middlemist and Mathis (1986, p. 328) stated that "managers must investigate the desirability of the rewards given for performance. The rewards must be based on what employees value, not what the managers value." It follows then that what faculty members value in work is determined by a basic value system.

Super (1970, p. 4) has defined work values as those "values which are extrinsic to as well as those which are intrinsic in work; the satisfaction which men and women seek in work and the satisfactions which may be the concomitant or outcomes of work."

Work values are a person's attitudes toward work in general, rather than his feelings about a specific job (Wollack, et al,1971). Zytowski (1970) supported this characteristic of work values when he stated that "within one

or a few work values, the individual has the orientation to explore many specific occupations" (p. 176). An individual's work value of altruism, for example, can be realized on a college campus or in a fire department.

The literature supports the discriminating capabilities of work values. Henrichs (1972, p. 563) found that new chemistry PhDs who initially took industrial jobs "differed significantly in profession-oriented values from chemists who entered and remained in academic positions." In addition, different work values orientations have been found to exist between occupational groups. Super's Work Values Inventory (1968) has been found to discriminate between occupational groups (Normile, 1967; Reichel, Neumann, and Pizam, 1981; Carruthers, 1968). In studying work values among faculty members in three Southern Baptist colleges in Kentucky, Dicken (1984) found significant differences between faculty when they were segmented according to academic rank, teaching area, faculty age, sex, and academic degree.

Diversity Among Institutions

Faculty in the small liberal arts college come from a variety of backgrounds and often spend the majority of their time teaching both in their own field and beyond. It is often difficult for them to specialize and to do research in one discipline. Without this specialization, they typically lack the network offered by the discipline. While the differences between the university and small college faculty are fairly evident, the many different types of small colleges would suggest a diversity of faculty at these institutions. There are elite liberal arts colleges and those which have meager academic standards; some are predominantly supported by a particular church and others are not; and some are pure liberal arts while others have

compromised the liberal arts concept because of the necessity for more vocationally oriented programs (Clark, 1985).

There are also differences within the categories. Pace (1975) classified Protestant colleges according to their degree of connection to the Church; they range from those with only historical links to those that are presently associated with evangelical, fundamentalist, and interdenominational Christian churches. He found that there were "striking differences between the different groups of Protestant colleges" (p. 82). The evangelical and fundamental groups were found to have campuses characterized by politeness, consideration, and a feeling of group cohesiveness. Faculty at these institutions generally view their teaching as a ministry (Holmes, 1975), and faculty member influence in organizational decisions is not as great as it is at the public university and nondenominational institution (Kenen and Kenen, 1978). The colleges that maintained only historical links with the Protestant religion were found to be like other liberal arts colleges of the same size.

These different types of institutions have faculty with differing needs and goals, and this would suggest a diversity of work value orientations. Research has shown that work values can be affected by the job experience (Hinrichs, 1972; Weiss, 1978), and that individuals tend to join organizations that will provide those things which they value; therefore one would expect work values of faculty to vary from one type of institution to another. This study will investigate the difference between church-related college faculty and independent college faculty in the importance attached to various work values.

Differences Among Faculty

Clark (1985, p. 238) stated that, "The value systems of the faculty particularly cluster around the individual disciplines and hence at one level of analysis there are as many value systems as there are departments." Biglan (1973) set about to group academic disciplines according to a variety of dimensions and found that thirty-five academic areas could be categorized using three dimensions. The first distinguishes those disciplines which have a paradigm from those which do not. This dimension distinguishes hard sciences, engineering, and agriculture from social science, education, and humanities. The dimension can be labeled Hard-Soft. The second dimension can be labeled Pure-Applied and reflects the way scholars view the academic area according to its application to practical problems. The third dimension is labeled "concern with life systems" and distinguishes biological and social areas (Life) from those that deal with inanimate objects (Nonlife).

Three studies utilizing the Biglan Model are of particular relevance to this study. Eison (1976) and Winkler (1982) used the model to examine faculty job satisfaction and Gmelch, Lovrich and Wilke (1984) used the model to study sources of stress in academe. In these cases the model proved to be a framework for distinguishing academic areas.

Creswell and Bean (1981) concluded that the model can be generalized to research and doctoral degree granting institutions but stated that the model "should be studied in types of institutions such as the four-year state colleges or the two-year campuses" (p. 87).

Review of the literature does not indicate that the model has been used to study small colleges except for Biglan's initial study, but because of the repeated success of the model, this study used the Biglan dimensions as a

classification method to test for significant differences in work value orientations among disciplines.

Differences in Age and Tenure

The age of the faculty member would seem to be a personal factor that affects work values orientation and job satisfaction. There are a variety of findings that suggest a positive relationship between contentment and age, particularly for the life-long scholar. Baldwin and Blackburn (1981) found that older professors identify more with their roles as teachers and as members of particular institutions. This is contrasted to the younger faculty who tend to view themselves as disciplinary scholars.

Taylor and Thompson (1976) investigated the work values of young workers and found that younger workers valued self-expression through work to a greater extent than did older workers. They particularly valued the opportunity to learn and the chances to make responsible decisions. The more educated workers, regardless of age, showed a strong sense of pride and valued both intrinsic (job based) and extrinsic (economic) rewards (Steers, 1984). Finkelstein (1984) noted that over the course of an academic career, faculty tend to turn more to institutional and professional service and somewhat away from teaching and research. He offered the suggestion that there is possibly a decline in intellectual curiosity.

These studies would suggest that the faculty members in different age groups would differ in the importance assigned to various work values. This study examined those differences and in addition, examined "years as a faculty member" and "years as a faculty member at the present institution" for sources of variance in importance assigned to work values.

Differences Between Sexes

This study also compared the work value orientations of male and female faculty members. Women are assuming an ever increasing role in higher education. Although women hold only 19.4% of the tenured positions at four-year colleges (Bowen and Shuster, 1986), the number of females enrolled in doctoral programs has increased, and as more enter higher education, college administrators will need to be more concerned about the needs and aspirations of the female faculty member. Research has shown that differences in work attitudes of men and women vary. For example, Gomez-Mejia (1983) found differences in work attitudes between the sexes in groups of managers and professionals at the low tenure level but not in high tenure groups.

METHODOLOGY

This study examined fifteen different work values. Some findings were descriptive and exploratory in nature while others dealt with specific hypotheses. The hypotheses were stated as null hypotheses.

Hypothesis Number One:

> There is no significant difference in work value orientations between faculty in church-related liberal arts colleges and those in independent liberal arts colleges.

Hypothesis Number Two:

> There is no significant difference between faculty work value orientations in different teaching disciplines at liberal arts colleges.

Hypothesis Number Three:

There is no significant difference between faculty work value orientations when age is used as the independent variable.

Hypothesis Number Four:

There is no significant difference between faculty work value orientations when "number of years as a faculty member" is used as the independent variable.

Hypothesis Number Five:

There is no significant difference between faculty work value orientations when sex of the faculty member is used as the independent variable.

The Sample

The subjects selected for this study are faculty members from colleges that are members of the Council of Independent Colleges. This group of colleges was selected because of the current concern shown by the Council for faculty satisfaction and morale in its member colleges and because these schools are representative of the small four year colleges in the United States. These schools differ in a variety of ways, and for this study, the church-related will be compared with the non-church related. For the purpose of this study, the non-church related colleges will be referred to as "independent." Early in the study, it became apparent that it would be difficult to classify the small college accurately as a church-related college or as an independent. Some of those which were classified as an independent in Peterson's Annual Guide to Undergraduate Study (1985) actually had chapel and other things normally associated with a church-related school.

One school which the Council of Independent Colleges classified as independent was actually related to a church that, because of organizational structure, did not have control of the school. Approximately ninety-five percent of the students at this institution are members of the related church. Some of those classified as church-related actually had few of the characteristics normally associated with a church-related college.

In an attempt to classify more accurately the colleges in order to test the hypothesis, it was decided to send a questionnaire to a sample of Academic Deans of Council of Independent College members. Peterson's Annual Guide to Undergraduate Study was initially used to classify the schools and to determine the number of faculty and students. Schools with fifty or more faculty members were selected to ensure an adequate sample size from each school. There were 153 church-related colleges and 20 independent colleges after this selection. The 20 independent colleges and 20 randomly selected church-related colleges were selected. The questionnaire was constructed by referring to "The Marks of a Christian College" (Ringenberg, 1979) and Church-Sponsored Higher Education in the United States (Pattillo and MacKenzie, 1966). Thirty-two Deans responded, and after the results were tabulated, two faculty members who teach at a church-related college were asked to select eight schools that, in their opinion, could be unquestionably classified as church-related or as independent. Four colleges were selected from each group. Faculty members' names were obtained from the most recent college catalog, and surveys were sent to all faculty members at each school. A second mailing was sent four weeks after the first to those who had not responded. Questionnaires were mailed to 719 faculty members and 360 responded resulting in a 50% return rate. Of that number, 353 questionnaires

were usable: 215 from church-related colleges and 138 from independent colleges. Of these, 240 of the faculty members were male and 113 were female.

After the completed questionnaires were edited to determine their useability, the responses were entered into the computer by using predesignated coding for the demographic section and by entering the respondent's rating for each value directly from the instrument.

Survey Instrument

The survey consisted of three parts: an introductory letter, a demographic section, and a survey that asked the respondents to rate the importance of various aspects of work.

Super's Work Values Inventory was used to determine faculty work values. Neumann and Neumann (1983, p. 43) stated that "This inventory is still the best available instrument for studying work values." The instrument has easily understood directions and a vocabulary level that is simple but not offensive to executives or professional men and women. The survey measures fifteen different work values: Creativity, Management, Achievement, Surroundings, Supervisory Relations, Way of Life, Security, Associates, Esthetics, Prestige, Independence, Variety, Economic Return, Altruism, and Intellectual Stimulation (see Table I for definitions). There are three questions for each value for a total of forty-five. Each question is answered by marking a scale from 1 (unimportant) to 5 (very important). Fifteen scales are constructed by adding the score on each set of three questions so that a value will have a score of 3 to 15.

The demographics section of the questionnaire gathered data regarding years as a faculty member, years at the present institution, rank, teaching

discipline, age, degree held, and sex.

The questionnaire was pretested with faculty members at a small church-related college to check for clarity of instructions and to build the necessary computer instructions.

Analysis

The Statistical Analysis System (SAS) was used to analyze the data. Responses were entered and grouped into the fifteen values. Mean scores were computed for each work value for the various groups, and one-way analyses of variance were conducted using PROC GLM. Each work value, one at a time, was examined as the dependent variable. The General Linear Model (GLM) procedure was used to perform the analysis because of its ability to deal with groups consisting of unequal number of subjects. Tukey's procedure (Linton and Gallo, 1975) was used to make a pairwise comparison of means when there were more than two independent variables.

Teaching disciplines were grouped as Hard-Soft, Life-Nonlife, and Pure-Applied according to Biglan's Model (1973b). In addition, mutually exclusive categories were used to provide eight disciplinary categories: Hard-Nonlife-Pure (HNP); Hard-Life-Pure (HLP); Hard-Nonlife-Applied (HNA); Hard-Life-Applied (HLA); Soft-Nonlife-Pure (SNP); Soft-Life-Pure (SLP); Soft-Nonlife-Applied (SNA); and Soft-Life-Applied (SLA). The disciplines were assigned to the Biglan categories according to the procedure used by Creswell, Seagren, and Henry (1979). There are teaching disciplines on this list that are not applicable for the colleges in this study but are included to help identify the various categories. In addition to their classification, this study added Bible and English to the Soft-Nonlife-Pure category and added

Sociology to the Soft-Life-Pure category (Table II).

Findings

The findings of the study are presented in Tables III-VI. The work values orientation for all colleges combined are presented first, and then the findings used to test each hypothesis are presented. Since the study is partially exploratory in nature, the last section discusses findings that go beyond the specific hypotheses.

The mean scores for all respondents are reported in Table III. Way of Life, a value associated with work that permits one to live the kind of life he or she chooses and to be the type of person he or she wishes to be, received the highest mean score. This was followed by Altruism and Independence. The two work values of Management and Esthetics received the lowest mean scores.

The mean scores of work values of faculty in church-related colleges and those in independent colleges (Table III) indicate that there are significant differences between the two groups for the work values of Management, Supervisory Relations, Associates, Independence, and Altruism.

The church-related faculty value Associates significantly more than those at the independent colleges. The two groups differ significantly on the importance of the work value Independence ($p= 0.0055$). Those at the independent colleges value it more than those at the church-related colleges. In addition, the independent college faculty value the work value of Management less than those at the church-related college (8.09 vs 8.70, $p= 0.0100$). The work value of Altruism received the highest score for church-related faculty work values and had a p value of 0.0130 in the GLM procedure.

The mean scores for the work values by disciplines classified according to the Biglan Model are also presented in Table III. Those faculty members who teach in disciplines which have clearly delineated paradigms (Hard) were compared with those who teach in disciplines where the paradigm is less clearly delineated (Soft). The GLM procedure indicated that there was a significant difference in the mean scores for the work values of Esthetics, Independence, Way of Life, and Prestige.

When the faculty members are classified as Life or Non-life, only one work value, Esthetics, was found to be significantly different between the two groups.

The Pure-Applied comparison provided the greatest number of significantly different work values. The applied disciplines scored Management, Achievement, Supervisory Relations, Prestige, Variety, and Altruism as significantly more important than did the Pure discipline faculty members.

As the second step in analyzing the difference between faculty teaching disciplines, faculty members were placed in one of eight categories formed by the three dimensions of Hard-Soft, Life-Nonlife, and Pure-Applied. These categories are Hard-Nonlife-Pure (HNP), Hard-Nonlife-Applied (HNA), Hard-Life-Pure (HLP), Hard-life-Applied (HLA), Soft-Nonlife-Pure (SNP), Soft-Nonlife-Applied (SNA), Soft-Life-Pure (SLP), and Soft-Life-Applied (SLA). Since there were more than two groups being compared, Tukey's specific comparison test was used to determine if there were significant differences between individual groups. There were significant differences found between the groups' scores for the work values of Management ($p= 0.0016$), Achievement ($p= 0.0016$), Surroundings ($p= 0.0033$), Security ($p= 0.0249$), Esthetics ($p= 0.0001$), Prestige ($p= 0.0169$), Independence ($p= 0.0113$), and Altruism ($p= 0.0360$). The

results of the Tukey Tests are presented in Table IV for those work values that had significant differences in more than two means. The Tukey Test indicated a significant difference (p= 0.05) between the SLP faculty and SLA faculty even though the GLM procedure indicated no significant difference (p= 0.0607).

The Soft-Life-Applied faculty (primarily education) score highest on the work value of Management and were significantly different from the Hard-Nonlife-Pure faculty (math, physics,etc) and Soft-Life-Pure (psychology, sociology, etc). The Soft-Life-Pure faculty, in turn, scored the work value of Achievement lower than the other faculty members and significantly lower than Soft-Life-Applied, Soft-Nonlife-Applied (business), and Soft-Nonlife-Pure (fine arts, philosophy,etc). Soft-Life-Pure faculty scored Surroundings significantly less than did the Soft-Nonlife-Pure and the Soft-Life-Applied faculty members. The work value of Security was valued less by the Soft-Nonlife-Applied faculty than by other faculty members and this difference was significant when compared to the Soft-Nonlife-Pure faculty. The Soft-Nonlife-Pure faculty rated Esthetics significantly higher than five of the other groups and produced the greatest differences between disciplines found in the study. The SNA faculty scored Esthetics low in relation to the other work values but still scored it significantly higher than the other faculty members.

Table V presents the work value scores for faculty members when they are stratified by age. The GLM procedure produced only two work values which were significantly different: Independence (p = 0.0175) and Economic Return (p = 0.0362). The Tukey Test also indicated a significant difference (p = 0.05) between the 31-40 year age group and the 41-50 age group for the work value

Associates. In addition, the Tukey Test produced a significant difference between the 31-40 year group and the 51-60 year group for the work value Independence and produced a significant difference between the 31-40 year group and the greater than 60 year group for Economic Return.

The GLM procedure produced only one significant difference between faculty when they were classified according to years as a faculty member (Table V). The Tukey Test reflected that faculty members with more than 20 years tenure valued Esthetics significantly more than those in the 16 to 20 year group. Both groups rated this work value either last or next to last along with the work value Management.

If we examine the work values that are significantly different at the 0.10 level, Independence and Variety become significant with the value of Independence increasing with years and Variety decreasing.

When the faculty members are classified according to sex (Table VI), the mean score for nine of the fifteen work values are found to be significantly different. The female faculty members had higher mean scores for the values Creativity, Management, Achievement, Surroundings, Supervisory Relations, Way of Life, Variety, Altruism, and Intellectual Stimulation than the male faculty members.

When the two sexes are compared in each of the two types of colleges, it becomes apparent that there are more differences between the independent college sexes than are found at the church-related colleges. In every case where there is a significant difference, the female rates the work value as more important than her male counterpart.

Additional Findings

In addition to the findings that are related to the hypotheses of the study, other findings are worthy of our examination. When faculty members are classified according to the number of years as a faculty member at their present institutions (Table V), the work values of Surroundings, Security, Esthetics, and Variety were significantly different.

As a result of this study, it was found that:

1. There is sufficient evidence to reject the null hypothesis that there is no difference between the work value orientations of church-related faculty and independent faculty.
2. There is sufficient evidence to reject the null hypothesis that there is no difference between faculty work value orientations in different teaching disciplines at liberal arts colleges.
3. While there is not the magnitude of differences that we have found using other points of comparison, there are significant differences between faculty that can be attributed to age; therefore we reject the null hypothesis that there is no significant difference between faculty work value orientations when age is used as an independent variable.
4. There is not sufficient evidence that faculty members differ in work value orientations when years as a faculty member is used as the independent variable; therefore we fail to reject the null hypothesis.
5. There is sufficient evidence to reject the null hypothesis that there is no difference between faculty work value orientations when sex of the faculty member is used as the independent variable.

In addition, there were significant differences in the work value orientations of faculty members at small liberal arts colleges when

considering years at the present institution.

DISCUSSION

When the work value mean scores for all of the faculty members in the study are combined, the results closely parallel those of Dicken (1984) who found that "Across all variables, the work values held to be consistently important are Supervisory Relations, Achievement, Way of Life, Altruism, and Intellectual Stimulation (p. 55)." This study would add Independence as well. The faculty members in this study value what Neumann and Neumann (1983) call self-expression values much more than values concerning work conditions. The one exception is the value of Way of Life which is a work conditions value.

Differences in Types of Colleges

It was found that faculty members at church-related schools differ from faculty members at independent colleges on certain work values. The most significant differences are found in the value attached to Associates and Independence. The greater desire for association with fellow workers by church-related faculty members could be influenced by the similarity of backgrounds, beliefs, and basic life style. The greater importance attached to Independence by the independent college faculty coincides with the expected findings in this area. Because of the issues of academic freedom (Ramm, 1963) and containment (Clark, 1985) in the church-related college, a faculty member who placed a high importance on Independence would likely find the church-related college too restrictive.

This finding should be of particular interest to an organization such as the Council of Independent Colleges which has member schools from both of

these groups. These differences could perhaps influence any Council recommendations concerning faculty enrichment and development. The church-related faculty probably value affiliation type activities much more than those faculty at independent colleges. Administrators at the independent college could likely expect the faculty to resist any policy that would threaten their independence.

The greater value attached to Altruism, Supervisory Relations, and Management would possibly suggest that the church-related faculty would be more receptive to demands placed on them by administrators such as increased teaching load and committee membership. In addition, the greater value placed on Altruism would support the expected findings that church-related faculty consider their teaching as a ministry.

The findings also indicate that there are many similarities in the work value orientation of the two groups. Such values are Variety, Creativity, Prestige, Economic Return, and Intellectual Stimulation are given similar weight by both groups.

Differences in Teaching Disciplines

When the faculty is categorized as either Pure or Applied, there are five work values which significantly differ at the $p < 0.05$ level. This would suggest that the Pure/Applied grouping of faculty is appropriate for the small liberal arts college which has added business, education, mass communications, and other degree programs in an effort to meet the demands of the student who wants a degree that will lead to a job.

The Applied faculty values Management, Achievement, Supervisory Relations, Prestige, and Variety more than the Pure faculty. One might have

expected the Applied faculty member to value Economic Return more than his/her Pure counterpart because of a frequent connection with industry. While this is not the case, there is a significant difference between the Soft-Nonlife-Applied (business) and Soft-Nonlife-Pure (fine arts, English, etc) on the mean score for Security. The SNA faculty possibly valued it less because of the demand for this faculty member's discipline outside the academic setting. This increased possibility for mobility could be reflected in this score.

Differences Due to Age and
Years as a Faculty Member

This study found little difference in work value orientations that can be attributed to age or tenure as a faculty member. An analysis of the findings which did produce significant differences suggest that as faculty members grow older, particularly between the ages of 31-40 and 41-50, they value Associates less. This could reflect self-confidence and a tendency toward self-reliance. Somewhat parallel to this is the significant increase in the importance of the work value Independence between the 31-40 and 51-60 year groups. This supports the findings of Taylor and Thompson (1976) concerning relations with co-workers. The significant difference in Economic Returns is not found until the faculty member exceeds 60 years of age, although there is a gradual decrease through the years up to that time. Taylor and Thompson found no difference in desire for economic return that could be attributed to age, and our findings would partially support that up to the age group of over 60 years.

In summary, faculty members tend to value Associates less and Independence more as they grow older but do not seem to value Economic Return significantly less until they are over 60 years of age.

Administrators would be unwise to attempt to motivate older faculty members with additional pay and would be wiser to increase their independence. The literature suggests differences in preference for various combinations of benefits packages for different age groups, but this study does not indicate that. Security would be the work value most likely to differentiate in the area of benefits, but the age groups were very similar in their response to this variable. There are even fewer differences in work value scores when tenure as a faculty member is considered.

Differences Due to Sex

The greatest differences between work value orientations were found when the faculty members were divided by sex. There were nine work value scores which were significantly different. The higher scores on the work values of Management, Achievement, and Supervisory Relations would suggest that the female faculty member might be more interested in advancement than the male faculty member. There is also the suggestion of a greater intensity and determination on the part of the female member. Whatever the reason, there are more differences between faculty member work values when they are grouped according to sex than with any other grouping.

It is interesting to note that the greatest differences were between faculty members at the independent colleges. This would seem to indicate that there are basic values and beliefs shared by faculty members at church-related colleges that transcend the difference in sex.

CONCLUSIONS

The importance attached to certain work values by church-related college faculty and independent college faculty differ. As a result, agencies or individuals concerned about faculty morale and satisfaction in these institutions should recognize the need for reward systems which take these differences into consideration. The differences in the importance attached to the work values of Associates, Independence, and Altruism would suggest that there are motivational options available to the administrators of one group which would be inappropriate or ineffective for the other. One can conclude from this study that there is a distinctiveness that can be attached to the church-related college faculty. The study suggests a greater closeness and sense of mission than is found at the independent college. At the same time, there seems to be a more submissive attitude among faculty at the church-related college.

Small college faculty in different teaching disciplines differ in the importance attached to work values. This is particularly true when the faculty is classified as either Pure or Applied. Although these differences would be expected in the more specialized environment of the university, the small college administration often views the faculty as a homogeneous group. The results of this study support the statements of authors who point out that, for a variety of reasons, individuals tend to place different value on various rewards (Clark, 1985; Steers, 1984). As a result of these findings, attention should be given to these differences when developing reward packages and faculty development programs.

The older faculty members in small colleges value monetary rewards less than the younger faculty members but value independence more. This would

suggest that the applying of the relatively less expensive intrinsic motivators could increase the morale and satisfaction of the older faculty member and that the greatest benefits of increased monetary rewards would be experienced by the younger faculty members.

Male and female faculty members differ significantly in the importance placed on many of the work values investigated, particularly at the independent college. Any attempt to improve morale and satisfaction should take this into account. This study tends to indicate that women value upward mobility and those things normally associated with authority more than their male counterparts.

Overall, the findings in this study support the conclusion that faculty members at the selected small liberal arts colleges differ in the importance attached to various work values.

RECOMMENDATIONS

Those individuals who make decisions and recommendations that affect both church-related colleges and independent colleges should understand that there are differences between the basic work values of faculty members at these different institutions. Programs to improve faculty satisfaction and morale that affect both should be implemented locally in order to enhance success and acceptance.

College Administrators in institutions that are experiencing the transition from purely liberal arts to more applied technical programs should understand that the new faculty members in applied fields may be motivated by different rewards than the liberal arts faculty.

Chief academic officers and department chairpersons should recognize that

as they add female faculty members in increasing numbers, they will need to be sensitive and responsive to a different work value orientation. It is recommended that administrators encourage feedback from the female faculty members to ensure that needs are being met.

Administrators at church-related colleges could develop plans to capitalize on the value placed on Associates. This is a work value that would suggest satisfaction with activities, both formal and informal, that bring faculty members together.

College administrators should be straight-forward when interviewing prospective faculty members. Care should be taken to communicate the institution's policies and reward systems so that the faculty member can decide if there is congruence between what is offered and expected and his or her basic work values.

This study found that the importance attached to various work values in small liberal arts colleges differs and therefore the value attached to rewards will vary from faculty member to faculty member. It should be remembered that the colleges in the study were selected from institutions belonging to the Council of Independent Colleges, and while they are representative of the small liberal arts college, care should be exercised when applying the results of this study to colleges beyond those chosen.

SELECTED REFERENCES

Biglan, A. "Relationship Between Subject Matter Characteristics and the Structure and Output of University Departments." Journal of Applied Psychology, 57 (1973), 204-213.

Biglan, A. "The Characteristics of Subject Matter in Different Academic Areas." Journal of Applied Psychology. 57 (1973), 195-203.

Blood, M. R. "Work Values and Job Satisfaction." Journal of Applied Psychology, 53 (1969) 456-459.

Butler, J. K. "Value Importance as a Moderator of the Value Fulfillment- Job Satisfaction Relationship: Group Differences." Journal of Applied Psychology, 68 (1983), 420-428.

Carruthers, T. E. "Work Values and Chosen Careers: Note on a Trial of an American Work Values Inventory With British Subjects." Occupational Psychology, 42 (1968), 111-117.

Clark, B. R. "Faculty Culture." ASHE Reader on Faculty and Faculty Issues in Colleges and Universities. Ed. Martin Finkelstein. Massachusetts: Ginn Press, 1985.

Creswell, J. W., J. P. Bean. "Research Output, Socialization, and the Biglan Model." Research in Higher Education, 15 (1981), 69-91.

Dicken, B. G. "The Use of Work Values and Developmental Theory in Faculty Career Development Activities." (Unpub. Ed.D. dissertation, George Peabody College for Teachers of Vanderbilt University, 1984).

Eison, C. L. "The Measurement of Job Satisfaction and Departmental Association at Western Kentucky University: Testing the Holland and Biglan Models." (Unpub. Ed.D. dissertation, University of Kentucky, 1976).

Finkelstein, M. J. The American Academic Profession. Columbus: Ohio State University Press, 1984.

Freedman, M. "Personal History and Professional Career." ASHE Reader on Faculty and Faculty Issues in Colleges and Universities. Ed. Martin Finkelstein. Massachusetts: Ginn Press, 1985.

Gmelch, W. H., N. P. Lovrich, P. K. Wilke. "Sources of Stress in Academe: A National Perspective." Research in Higher Education, 20 (1984), 477-490.

Gomez-Mejia, L. R. "Sex Differences During Occupational Socialization." Academy of Management Journal, 26 (1983) 492-499.

Hindrichs, J. R. "Value Adaptation of New Ph.D.'s to Academic and Industrial Environments: A Comparative Longitudinal Study." Personnel Psychology, 25 (1972) 545-565.

Hitt, M. A., R. D. Middlemist, R. L. Mathis. Management: Concepts and Effective Practice. St. Paul: West, 1986.

Holmes, A. F. The Idea of a Christian College. Grand Rapids: Eerdmans Publishing Co., 1975.

Lawrence, J. H., R. T. Blackburn. "Faculty Careers: Maturation, Demographic, and Historical Effects." Research in Higher Education, 22 (1985) 135-154.

Linton, M., P. S. Gallio, Jr. The Practical Statistician: Simplified Handbook of Statistics. Monterey, CA: Brooks/Cole, 1975.

Locke, E. A. "Job Satisfaction and Role Clarity Among University and College Faculty." Review of Higher Education, 6 (1983), 343-365.

Locke, E., "The Nature and Causes of Job Satisfaction." Handbook of Industrial and Organizational Psychology. Ed. M. D. Dunrette. Chicago: Rand McNally, 1976, pp. 1297-1350.

Neumann, L., Neumann, Y. "A Discriminant Analysis of Students' Work Values: Differences Between Engineering and Liberal Arts." Journal of Experimental Education, 52 (1983), 41-46.

Pace, C. R. "Education and Evangelism: A Profile of Protestant Colleges." Sponsored Research of the Carnegie Commission on Higher Education. New York: McGraw-Hill, 1975.

Reichel, A., Y. Neumann, A. Pizam. "The Work Values and Motivational Profiles of Vocational, Collegiate, Nonconformist, and Academic Students." Research in Higher Education, 14 (1981), 187-199.

Ringenberg, W. C. "The Marks of a Christian College." Christianity Today, (November 2, 1979), pp. 26-29.

Schuster, J. H., H. R. Bowen. "The Faculty at Risk." Change, (September-October 1985), pp. 13-21.

Schuster, J. H., H. R. Bowen. American Professors: A National Resource Imperiled. New York: Oxford Press, 1986.

Steers, R. M. Introduction to Organizational Behavior. 2nd Ed., Glenview, Illinois: Scott, Foresman, 1984.

Super, D. E. Work Values Manual. Boston: Houghton Mifflin, 1970.

Taylor, R. N., M. Thompson. "Work Value Systems of Young Workers." Academy of Management Journal, 19 (1976), 522-536.

Vroom, V. "Ego Involvement, Job Satisfaction, and Job Performance." Personnel Psychology, 15 (1964), 159-177.

Wanous, J. P., E. E. Lawler. "The Measurement and Meaning of Job Satisfaction." Journal of Applied Psychology, 56 (95-105), 1972.

Weiss. H. M. "Social Learning of Work Values in Organizations." Journal of Applied Psychology, 63 (1978), 711-718.

Winkler, L. D. "Job Satisfaction of University Faculty in the United States." (Unpub. Ph.D. dissertation, The University of Nebraska-Lincoln, 1982).

Wollack, S., J. G. Goodale, J. P. Wijting, P. C. Smith. "Development of the Survey of Work Values." Journal of Applied Psychology, 55 (1971), 331-338.

Zytowski, D. G. "The Concept of Work Values." Vocational Guidance Quarterly, (March 1970), 176-186.

TABLE I

WORK VALUE DEFINITIONS
(Super, 1970)

Creativity....	A work value associated with work which permits one to invent new things, design new products, or develop new ideas.
Management....	A work value associated with work which permits one to plan and lay out work for others to do.
Achievement...	A work value associated with work which gives one a feeling of accomplishment in doing a job well.
Surroundings..	A work value associated with work which is carried out under pleasant conditions - not too hot or too cold, noisy, dirty, etc.
Supervisory Relations.....	A work value associated with work which is carried out under a supervisor who is fair and with whom one can get along.
Way of Life...	A work value associated with the kind of work that permits one to live the kind of life he chooses and to be the type of person he wishes to be.
Security.....	A work value associated with work which provides one with the certainty of having a job even in hard times.
Associates....	A work value characterized by work which brings one into contact with fellow workers whom he likes.
Esthetics.....	A work value inherent in work which permits one to make beautiful things and to contribute beauty to the world.
Prestige.....	A work value associated with work which gives one standing in the eyes of others and evokes respect.
Independence..	A work value associated with work which permits one to work in his own way, as fast or as slowly as he wishes.
Variety.....	A work value associated with work that provides an opportunity to do different types of jobs.
Economic Return.....	A work value associated with work which pays well and enables one to have the things he wants.
Altruism.....	A work value present in work which enables one to contribute to the welfare of others.
Intellectual Stimulation...	A work value associated with work which provides opportunity for independent thinking and for learning how and why things work.

TABLE II

CLASSIFICATION OF DISCIPLINES INTO
BIGLAN'S THREE DIMENSIONS

Pure

Hard		Soft	
Non-Life	Life	Non-Life	Life
Mathematics	Plant Pathology	Music	Psychology
Physics	Entomology	Fine Arts	Anthropology
Chemistry	Biology	Art	Geography
Geology		Modern Languages	Political Science
		Classics	History&Phil of Education
		Speech Comm.	Social Work
		Philosophy	
		History	
		Bible	
		English	

Applied

Hard		Soft	
Non-Life	Life	Non-Life	Life
Architecture	Agronomy	Accounting	Educational Psychology
Computer Science	Animal Science	Finance	Elementary Education
Agricultural Engineering	Horticulture	Management	Secondary Education
Civil Engineering	Food Science	Marketing	Adult Education
Electrical Engineering	Periodontics	Textiles & Clothing	Educational Admin.
Mechanical Engineering	Oral Diagnosis	Economics	Health, Phys. Educ.& Rec.
Industrial Engineering	Oral Surgery	Journalism	Education & Family Res.
Construction Management	Pedontics	Law	Ag. Education
Engineering	Adult Dental Care		Industrial
	Oral Dentistry		
	Preventive Dentistry		
	Endodontics		
	Dental Hygiene		
	Forestry		
	Food & Nutrition		
	Veterinary Services		

TABLE III

WORK VALUE MEAN SCORES

Group	All Respondents	Church-Related	Independent	F Ratio	Hard	Soft	F Ratio	Life	Non-Life	F Ratio	Pure	Applied	F Ratio
n=	353	215	128		84	269		145	208		233	120	
Creativity	11.89	11.89	11.89	0.00	11.55	12.00	2.58	11.99	11.82	0.52	11.89	11.88	0.00
Management	8.46	8.70	8.09	6.71*	8.23	8.54	1.28	8.72	8.28	3.41	8.16	9.05	13.18**
Achievement	12.47	12.56	12.33	1.38	12.36	12.50	0.42	12.36	12.54	0.88	12.24	12.90	11.23**
Surroundings	10.57	10.65	10.45	0.79	10.70	10.53	0.42	10.70	10.62	0.23	10.55	10.63	0.12
Supervisory Relations	12.41	12.63	12.07	5.79*	12.27	12.46	0.51	12.42	12.40	0.01	12.25	12.73	4.08*
Way of Life	13.11	13.07	13.18	0.35	12.67	13.25	7.40**	13.10	13.13	0.02	13.07	13.20	0.46
Security	10.06	10.27	9.74	3.53	9.70	10.17	2.13	10.11	10.02	0.10	10.17	9.85	1.21
Associates	9.08	10.17	9.21	20.35**	10.00	9.73	1.17	9.74	9.84	0.21	9.78	9.83	0.04
Esthetics	8.37	8.50	8.17	0.90	7.25	8.73	14.94**	7.70	8.84	11.70**	8.57	7.99	2.73
Prestige	10.40	10.41	10.38	0.02	9.92	10.55	5.61*	10.42	10.39	0.02	10.23	10.73	4.36*
Independence	12.57	12.36	12.90	7.80**	12.04	12.74	10.04**	12.40	12.69	2.21	12.60	12.51	0.21
Variety	10.88	10.88	10.88	0.00	10.75	10.93	0.39	11.07	10.76	1.68	10.61	11.41	10.26**
Economic Return	11.03	11.00	11.07	0.08	10.93	11.06	0.20	11.10	10.98	0.25	11.02	11.04	0.01
Altruism	13.05	13.25	12.73	6.23*	12.92	13.09	0.48	12.98	13.09	0.28	12.90	13.33	3.78
Intellectual Stimulation	12.39	12.37	12.44	0.14	12.59	12.34	1.37	12.23	12.51	2.10	12.33	12.52	0.89

* p 0.05
** p 0.01
*** p 0.001
F-tests are from ANOVAs. Full data tables available from author.
Mean scores can range from 3.0(low) to 15.0(high).

TABLE 11

SUMMARY OF TUKEY TESTS

MEANS AND MEAN DIFFERENCES FOR THE WORK VALUE "MANAGEMENT"

	HNP (7.58)	HNA (8.22)	HLP (8.31)	HLA (9.33)	SNP (8.42)	SNA (8.56)	SLP (7.93)	SLA (9.41)
HNP	-	0.64	0.73	1.75	0.85	0.98	0.35	1.83*
HNA		-	0.09	1.11	0.20	0.33	0.30	1.19
HLP			-	1.02	0.11	0.24	0.39	1.10
HLA				-	0.91	0.78	1.41	0.07
SNP					-	0.13	0.50	0.98
SNA						-	0.63	0.85
SLP							-	1.48*
SLA								-

MEANS AND MEAN DIFFERENCES FOR THE WORK VALUE "ACHIEVEMENT"

	HNP (12.24)	HNA (12.33)	HLP (11.94)	HLA (12.90)	SNP (12.55)	SNA (12.89)	SLP (11.62)	SLA (13.00)
HNP	-	0.10	0.30	0.67	0.31	0.65	0.61	0.76
HNA		-	0.40	0.57	0.22	0.56	0.71	0.67
HLP			-	0.97	0.61	0.95	0.32	1.06
HLA				-	0.36	0.02	1.28	0.10
SNP					-	0.34	0.93*	0.45
SNA						-	1.27*	0.11
SLP							-	1.38*
SLA								-

MEANS AND MEAN DIFFERENCES FOR THE WORK VALUE "ESTHETICS"

	HNP (6.81)	HNA (7.67)	HLP (7.31)	HLA (7.80)	SNP (9.88)	SNA (7.59)	SLP (7.06)	SLA (8.38)
HNP	-	0.86	0.51	0.99	3.08*	0.78	0.25	1.57
HNA		-	0.35	0.13	2.22	0.08	0.61	0.71
HLP			-	0.49	2.57*	0.28	0.25	1.07
HLA				-	2.08	0.21	0.74	0.58
SNP					-	2.30*	2.82*	1.51*
SNA						-	0.53	0.79
SLP							-	1.32
SLA								-

MEANS AND MEAN DIFFERENCES FOR THE WORK VALUE "SURROUNDINGS"

	HNP (10.62)	HNA (9.56)	HLP (11.19)	HLA (10.95)	SNP (10.82)	SNA (10.17)	SLP (9.67)	SLA (10.98)
HNP	-	1.07	0.57	0.33	0.20	0.46	0.96	0.36
HNA		-	1.63	1.40	1.27	0.61	0.11	1.43
HLP			-	0.24	0.37	1.02	1.52	0.21
HLA				-	0.13	0.79	1.29	0.03
SNP					-	0.66	1.16*	0.16
SNA						-	0.50	0.82
SLP							-	1.32*
SLA								-

* $P < .05$

Note: Each value in the body of the table represents the difference between the column and row values.

TABLE V

WORK VALUE MEAN SCORES

Group	Age						Years as Faculty Member						Years at Present Institution					
	<30	30-40	41-50	51-60	>60	F Ratio	<4	4-6	7-14	15-20	>20	F Ratio	<4	4-6	7-14	15-20	>20	F Ratio
n =	11	101	139	73	29		35	54	83	80	101		56	68	81	67	81	
Creativity	12.60	11.72	11.77	12.21	11.97	0.91	11.51	11.67	12.10	11.95	11.92	0.57	11.70	12.13	11.70	11.96	11.95	0.47
Management	9.27	8.53	8.41	8.56	7.93	0.87	8.89	8.57	8.41	8.41	8.35	0.44	8.91	8.74	8.31	8.30	8.22	1.27
Achievement	13.27	12.29	12.40	12.73	12.44	1.27	12.57	12.19	12.53	12.33	12.65	0.78	12.43	12.31	12.38	12.42	12.76	0.74
Surroundings	10.63	10.39	10.36	10.95	11.24	2.02	10.50	10.22	10.52	10.48	10.90	1.14	10.33	10.15	10.58	10.48	11.17	2.84*
Supervisory Relations	12.73	12.47	12.30	12.39	12.66	0.26	12.74	12.15	12.59	12.14	12.51	0.93	12.67	12.28	12.30	12.11	12.70	1.07
Way of Life	13.55	13.23	12.98	13.01	13.45	0.81	13.20	13.13	13.13	13.05	13.10	0.05	13.18	13.03	12.84	13.21	13.33	0.93
Security	10.36	10.16	9.87	10.21	10.14	0.33	10.09	9.33	10.26	10.05	10.30	1.39	10.04	9.27	10.07	10.15	10.65	2.66*
Associates	10.09	10.22	9.50	9.65	10.00	2.18	9.97	9.94	9.95	9.53	9.73	0.64	9.93	9.94	9.69	9.46	9.96	0.83
Esthetics	8.36	8.33	8.00	9.08	8.50	1.48	7.86	8.19	8.26	7.74	9.24	3.10*	7.79	7.82	8.08	8.46	9.51	4.02**
Prestige	11.27	10.52	10.46	10.36	9.45	2.00	10.77	10.70	10.66	10.13	10.11	1.62	10.75	10.79	10.38	9.99	10.19	1.76
Independence	12.36	12.18	12.74	12.99	12.14	3.04*	11.94	12.20	12.63	12.73	12.81	2.30	12.16	12.46	12.57	12.90	12.68	1.44
Variety	11.36	10.97	11.02	10.71	10.17	1.14	10.66	11.35	11.20	10.88	10.47	1.98	10.82	11.66	10.96	10.87	10.20	4.05**
Economic Return	11.00	11.48	11.00	10.90	9.90	2.60*	11.26	11.17	11.07	11.01	10.85	0.27	11.07	11.12	11.04	11.14	10.83	0.21
Altruism	13.82	13.18	12.88	13.15	12.83	0.95	13.23	13.00	13.14	12.85	13.08	0.34	13.07	13.00	13.09	12.78	13.25	0.55
Intellectual Stimulation	12.46	12.48	12.39	12.19	12.62	0.43	12.00	12.54	12.47	12.40	12.39	0.58	12.04	12.85	12.25	12.61	12.22	2.41*

* $p < 0.05$
** $p < 0.01$
F-tests are from ANOVAs. Full data tables available from author.
Mean scores can range from 3.0(low) to 15.0(high).

TABLE VI

WORK VALUE MEAN SCORES BY SEX OF FACULTY MEMBER

Group	All Respondents			Church-Related			Independent		
n =	Male 240	Female 113	F Ratio	Male 141	Female 74	F Ratio	Male 99	Female 39	F Ratio
Creativity	11.64	12.41	9.38**	11.70	12.30	4.57*	11.60	12.60	5.08*
Management	8.18	9.08	13.30***	8.50	9.10	4.38*	7.70	9.00	9.04**
Achievement	12.27	12.88	9.52**	12.40	12.80	2.00	12.00	13.10	9.55**
Surroundings	10.32	11.11	12.27***	10.40	11.10	5.16*	10.20	11.20	7.09**
Supervisory Relations	12.17	12.93	10.14**	12.50	13.00	2.89	11.80	12.90	7.45**
Way of Life	12.92	13.52	9.03**	12.80	13.50	6.99**	13.00	13.50	2.37
Security	10.03	10.12	0.08	10.30	10.10	0.35	9.60	10.10	1.02
Associates	9.69	10.03	2.25	10.20	10.20	0.01	9.00	9.80	4.02*
Esthetics	8.33	8.45	0.11	8.60	8.30	0.30	8.00	8.70	1.35
Prestige	10.33	10.56	0.88	10.50	10.30	0.43	10.10	11.10	3.94*
Independence	12.54	12.64	0.24	12.30	12.50	0.26	12.80	13.00	0.19
Variety	10.71	11.26	4.66*	10.70	11.30	4.57*	10.80	11.20	0.69
Economic Return	11.05	10.98	0.06	13.20	13.40	0.77	11.00	11.30	0.48
Altruism	12.85	13.45	7.35**	13.20	13.40	0.83	12.40	13.50	8.39**
Intellectual Stimulation	12.27	12.66	4.01*	12.30	12.50	0.92	12.20	13.00	3.95*

* p 0.05
** p 0.01
*** p 0.001
F-tests are from ANOVAs. Full data tables available from author.